Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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2SK1103

Silicon N-channel junction FET

For switching circuits
Complementary to 2SJ0163

■ Features

- Low ON resistance
- Low-noise characteristics

■ Package

- Code
  Mini3-G1
- Pin Name
  1: Source
  2: Drain
  3: Gate

■ Marking Symbol: 4L

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Gate-drain surrender voltage	V_{GDS}	−65	V
Drain current	I_D	20	mA
Gate current	I_G	10	mA
Power dissipation	P_D	150	mW
Channel temperature	T_{ch}	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

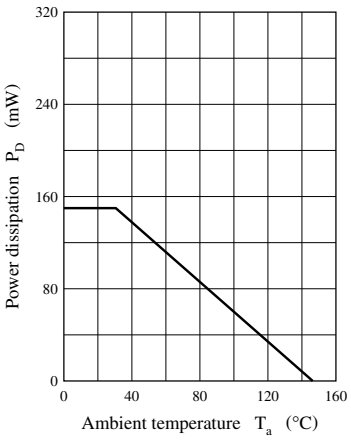
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Gate-drain surrender voltage	V_{GDS}	$I_G = -10$ µA, $V_{DS} = 0$	−65			V
Drain-source current *	I_{DSS}	$V_{DS} = 10$ V, $V_{GS} = 0$	0.6		6.0	mA
Gate-source cutoff current	I_{GSS}	$V_{GS} = -30$ V, $V_{DS} = 0$			−10	nA
Gate-source cutoff voltage	V_{GSC}	$V_{DS} = 10$ V, $I_D = 10$ µA		−1.5	−3.5	V
Forward transfer admittance	$\|Y_{fs}\|$	$V_{DS} = 10$ V, $I_D = 1$ mA, f = 1 kHz	1.8	2.5		mS
Drain-source ON resistance	$R_{DS(on)}$	$V_{DS} = 10$ mV, $V_{GS} = 0$		300		Ω
Short-circuit forward transfer capacitance (Common source)	C_{iss}	$V_{DS} = 10$ V, $V_{GS} = 0$, f = 1 MHz		7		pF
Reverse transfer capacitance (Common source)	C_{rss}			1.5		pF

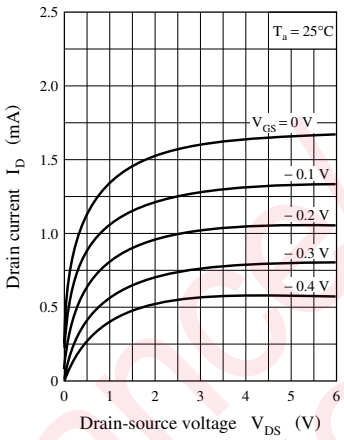
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. Observe precautions for handling. Electrostatic sensitive devices.
3. *: Rank classification

Rank	P	Q	R
I_{DSS} (mA)	0.6 to 1.5	1.0 to 3.0	2.5 to 6.0

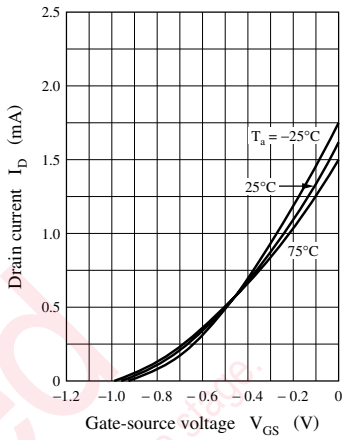
P_D — T_a



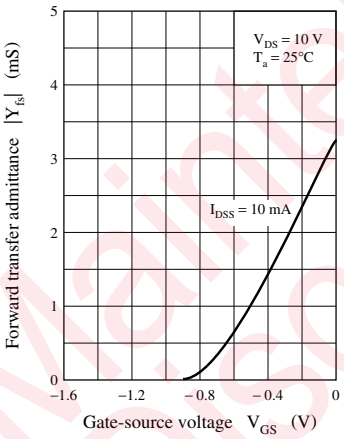
I_D — V_{DS}



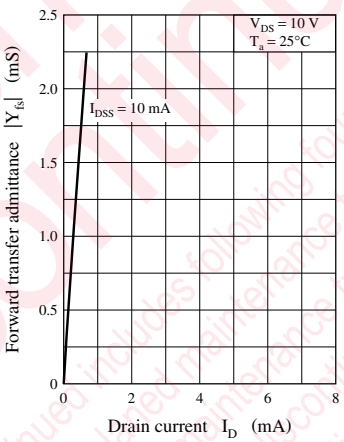
I_D — V_{GS}



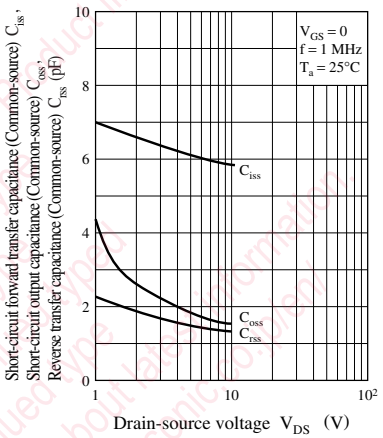
$|Y_{fs}|$ — V_{GS}



$|Y_{fs}|$ — I_D

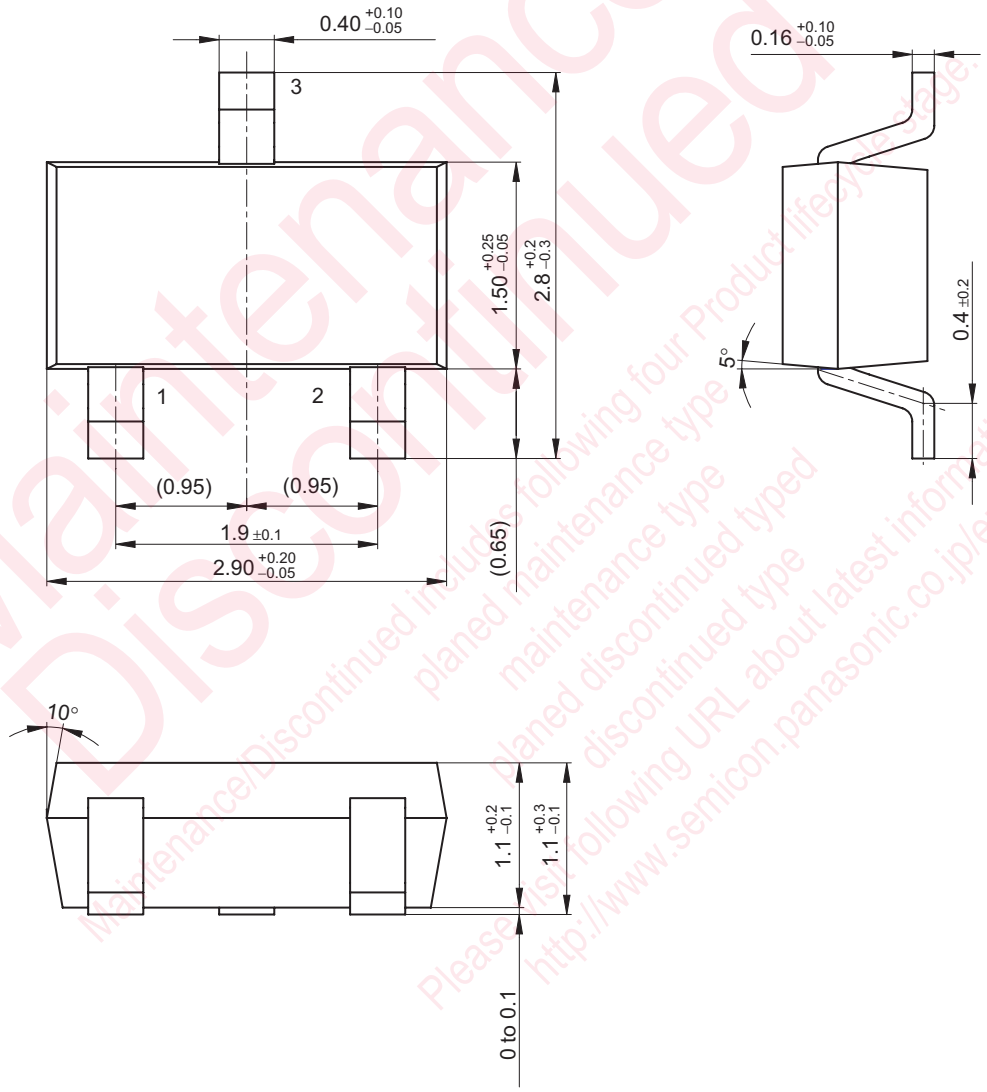


C_{iss}, C_{oss}, C_{rss} — V_{DS}



Mini3-G1

Unit: mm



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 Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.

(6) Comply with the instructions for use in order to prevent breakdown and characteristics change due to external factors (ESD, EOS, thermal stress and mechanical stress) at the time of handling, mounting or at customer's process. When using products for which damp-proof packing is required, satisfy the conditions, such as shelf life and the elapsed time since first opening the packages.